

Conference Paper

A Need Assessment on Competency Certification of Construction Workers in Indonesia

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Abstract

Competency certification for construction workers is a hot issue discussed in Indonesia today. The report shows that only 5% of construction workers are certified. This raises various responses regarding the real needs of the competency certification of the construction workers. On the other hand, certification of competence from workers is necessary for facing the ASEAN Economic Community (AEC) and the 4.0 industrial revolution is currently underway. The Qualitative survey method using descriptive analysis was used to explore 191 participants who were the consumers of construction workers. The instruments used were questionnaires accompanied by focus group discussions (FGD) and in-depth interviews. The results show that the level of need for the competence of construction workers is high. However, consumers need more workers who have many competencies. Regarding competency certification, socialization, quality, process, and results must be improved through credible institutions and mastering the field of training, measurement, and evaluation. In addition, the pattern of socialization and training to get there must involve experts in the field of education, measurement, and evaluation of training construction and certified skilled workers.

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1. Introduction

Since the issuance of Law no. 2 of 2017 is heavily carried out certification of construction workers. However, the Ministry of PUPR reported that there were only 700 thousand people certified from 8.1 million construction workers [1]. The LPJKN report shows that 450,313 construction workers are certified [2]. This situation indicates that the policy is still not in line with expectations.

The certified construction workers were 16.71% of the 3,286 construction workers in West Sumatra. This situation has not been added to the fundamental problems that it turns out that most of the workers who are certified are not from the area [3]. Whereas

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for the application of skill competency standards, there were 33.7% of masons, 30.37% of carpenters, 27.09% of steelworkers, 14.28% of masons wood and 26.19% steel /concrete mason [4]. This shows that there is still a lack of awareness among construction workers and that the functions of certification bodies are still not optimal. This fact indicates that basically the construction worker certification policy is still not needed.

On the other hand, certification of competence from workers is necessary for facing the ASEAN Economic Community (AEC) and the 4.0 industrial revolution currently underway. Construction workers will find it difficult to get good jobs in that era. In the AEC every construction workers should have a certification of competence that is not inferior to foreign workers who have started to be found in domestic projects [5]. The competence of construction workers must be increased to improve the competitiveness of construction workers in the face of competition in the AEC era. The government through the relevant Ministry is expected to be willing to provide assistance to construction workers, especially in the gradual and continuous competence and mastery of foreign languages [6].

The weak commitment of stakeholders in making improvements, reforming, implementing the process becomes part of the lack of good construction workers. The weakness of workers' income compared to the high cost of certification is still a constraint and community appreciation for construction workers is also one of the causes of lack of interest in the certification of construction workers [7]. This condition strengthens the suspicion whether the construction worker certification is really needed by the stakeholders? In responding to this, the Indonesian government basically has made a breakthrough through strategic policies in the vocational field [8].

Knowledge qualifications for non-certified masons with a minimum high school education of 72.73% and skills of 73.08% [9]. The skills of non-certified carpenters are 78.56% and knowledge is 81.43, while the skills of bricklayers 78.75 with knowledge of 85.65% [10]. Wardhana included 2 certified workers from a total of 30 respondents resulting in an average iron construction worker having 70.67% knowledge qualification with the highest score 90%, 86.66% skill qualification with the highest score of 92.5% [11]. Compared with 85% graduation knowledge and 95% skills [12]. These results are still far below the standard. That is, from the competency tests that have been conducted not really address the true competence. The existence of 2 certified workers has no effect.

The assessment of foremen on the performance of construction workers still cannot meet expectations [13]. construction worker hopes for his assistant [14]. The gaps from

the start of skills, expectations and the fact that the implementation of the construction workers' competency certification has not yet been optimal have caused problems that must be traced.

On the other hand, the right strategy to improve the performance (competence) of construction workers is through improving the skills and quality of workers' resources through training and certification of workers' skills [15]. One factor that can improve performance in construction projects is the competence of workers in construction projects [16]. The success of the training turned out to not be able to stand alone, the role of the government and the work unit of each worker had a big role in the success of the training [17].

2. Methods and Equipment

2.1. Participants

This research was conducted on sample 191 participants, with ages ranging between 25 – 65 years, April 1 – May 1, 2018. Participants divided into two groups costumers, retail costumers (119) and business customers (72). In Indonesia, there are two stakeholders among construction workers, retail stakeholders, and business stakeholders. Construction workers are needed by both, but cannot be put together into real needs, because of the different work characteristics. Retail stakeholders work in the housing, renovation, and small decorating sectors. Business Customers work in the construction sector of high rise buildings, offices, and business centers.

2.2. Measures

The questionnaire consists of 7 questions. The main investigation theme includes: knowing of, how to get, competence and opinion of construction workers. We used Interview guide for collect the specified data from participants with 5 tiered questions.

2.3. Research design

This Research uses Qualitative Method with descriptive analyze. We use questionnaire and interview to collect data from participants. First stage all participant complete questionnaire for some general questions. After this stage some participants we invited to interview and Focus Group Discussion (FGD) about the general and critical problem.

2.4. Procedure

The first stage all participants were informed about the purpose of the present investigation and about the instruments used to collect data. To avoid any measuring error that might have been to the data collection procedure, all participants were given some collective on-line briefing before questionnaire completion. After this stage, some participant we invited to interview. Final Stage, we divided participants into two groups (@ 5 customers) for Focus Group Discussion (FGD) about the general and critical answer.

After descriptive data analysis and in-depth interviews, conclusions are drawn. Presentation of research data is done using percentages because the number of participants is not the same as each other.

3. Results

3.1. Needs and information about workers' competencies

Construction worker profiles are the most basic information that consumers need from construction work. The view of the public still underestimates this work. But on the other hand, the need for labor in this sector is very large [18]. This can be reflected in the needs of both retail consumers and business consumers below:

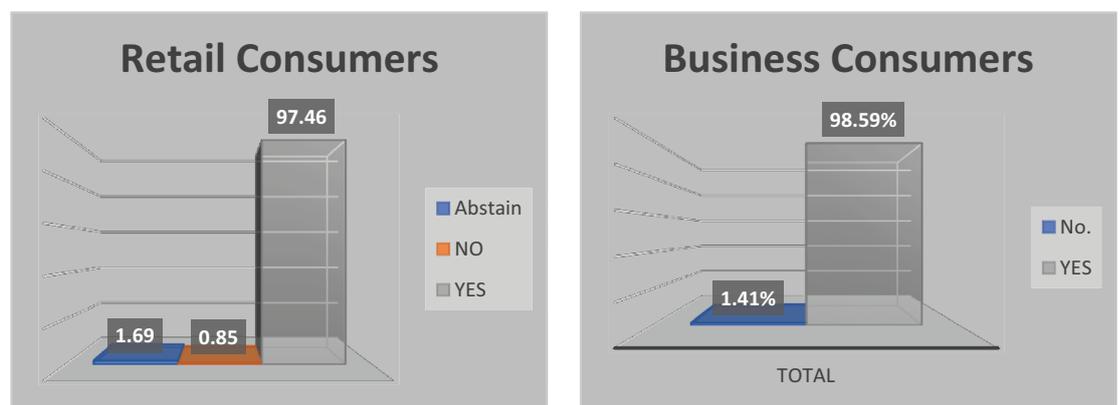


Figure 1: Competency Needs of Construction Workers.

The results of the study show that retail consumers and business consumers alike need clear information about artisan competence before being employed. This is reflected in the figure of 97.46% and 98.59% in the question "Needing construction workers whose competence are appropriate for the job?" When conducting interviews and FGDs. Although consumers consider this work to be a tough job, they need

clear information about their competencies. This response indicates that construction workers are not workers who "everyone can do" like the assumption of most people.

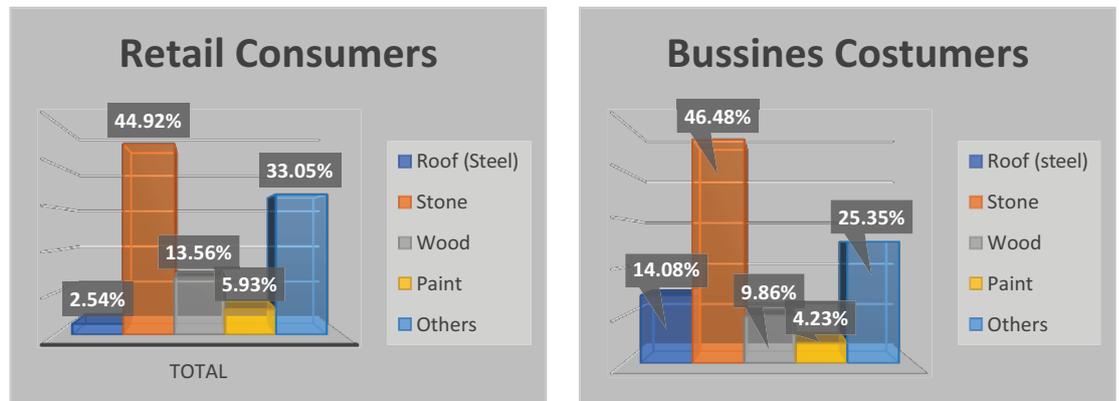


Figure 2: The Most Needed Construction Worker.

Responses from retail and business consumers are still the same. Most consumers need masons by 44.92% and 46.48% whose work area is wider than others. It is interesting to observe that the needs of other artisans occupy the second position of 33.05% and 25.35%. When conducting interviews and FGDs to respondents, it was found that this indicated that consumers needed construction workers who had various abilities, especially as stone, wood, and painting workers. The competence of steel roofing workers in business customers by 14.08% differ considerably far from retail consumers by 2.54%. This is because business consumers are more likely to trust steel roof work to workers with special competence. While retail consumers use more conventional roofs. Furthermore, wood competence can be understood (13.56% & 9.86) and painting (5.93% & 4.23%), the need is much lower because basically, consumers need workers with multiple competencies.

However, there is a clear difference between the response of retail consumers and businesses from the resources of construction workers apart from other companies. The "recommendation" option is still in the second position, but the difference in percentage is so far between 36.44% and 12.68. As previously stated, the needs of workers in this sector are very large but the demand is quite limited. It seems that this was confirmed by the results of this study. Although the first choice remains through the company, the fulfillment of the workforce in the construction project still provides opportunities for the foreman, even "innate people" [19].

3.2. Construction worker competency certification

Knowledge of construction worker certification is the next question given to participants. The research results can be presented as follows:

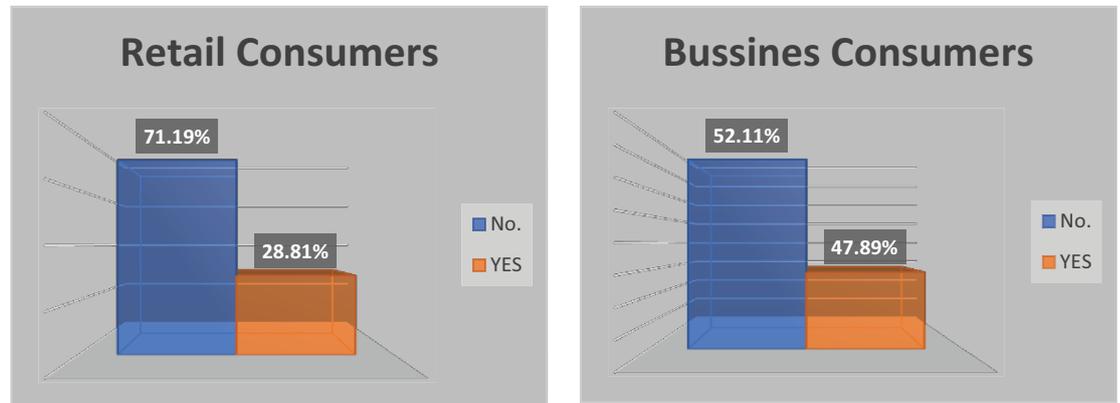


Figure 3: Information about Competency Certification for Construction Workers.

Participants' responses indicate that consumers are generally less aware of the certification of construction workers. This can be seen from the data produced that as many as 71.19% of retail consumers and 52.11% of business consumers do not comply. This means that at the employer level the standardization and certification of skills of construction workers have not become a strategic and central issue.

The need for construction worker certification is the next question given to participants. The research results can be presented as follows:

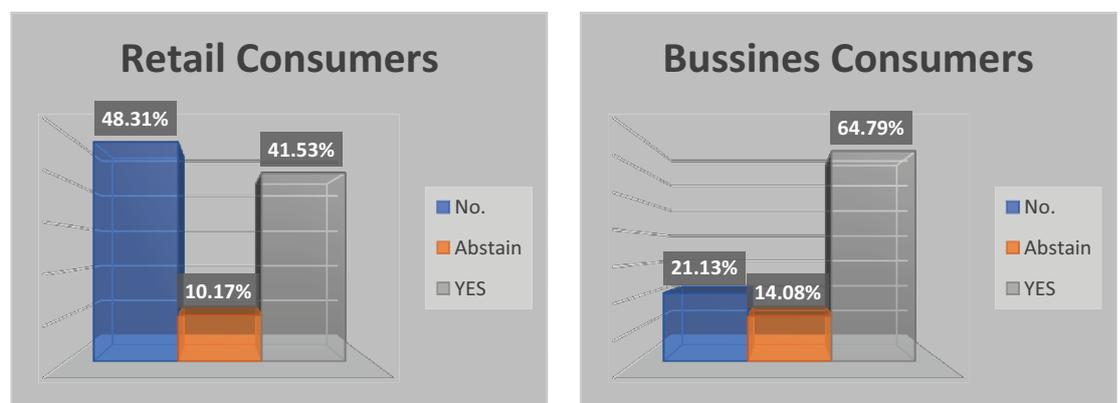


Figure 4: Construction Worker Certification Needs.

Participants' responses indicate that generally retail consumers are less in need of certification of construction workers. This can be seen from the data produced that as many as 48.31% of retail consumers. In contrast to business consumers who need it most with a response of 64.79%. After learning about this certification, business consumers tend to respond more positively, it was revealed from interviews and FGDs that were

conducted. Business consumers tend to be safe looking with existing standards and regulations. While retail consumers seem to be passive. The conclusion can be seen below:

TABLE 1: Result of Need Assessment on Competency Certification of Construction Workers in Indonesia.

Costumers	Need			
	Skilled Workers	Certified Worker	Multiple Skilled	Information on Skilled
Business	✓	✓	✓	✓
Retail	✓	×	✓	✓

4. Discussion

Participants’ responses to various questions indicate that basically, they need “certainty” about skilled construction workers. This certainly can be interpreted as a competency that is standardized through training, certification and clear, regulatory and practical socialization. The current shortcomings are more likely to be socialization and access to skilled construction workers who seem to be cut off. As a result, other routes emerged to meet the needs of skilled workers in the construction sector, which was far from the standard. In addition, other factors such as job descriptions and the work environment also have a role in developing workers’ competencies [20].

Construction that employs workers who are not standardized is sufficient to face large risks. In addition to the results of the work that does not necessarily fulfill the requirements, the process does not have a good basis. Therefore, access to worker certification and access to certified workers in the construction sector needs to be made simpler. Construction-related education among employees, contractor experience in construction works, source reduction measures, etc. are the most significant factors affecting the contractor’s performance [21]. At the time of the training and certification that was carried out now, it was proven not to have a consistent impact on the workers [11].

The results of interviews and FGD knowledge about the certification of competency of skilled workers has not yet become a prominent issue, because they think construction workers are unskilled workers, everyone can do it up to the costs they will incur due to the use of a certified workforce. This means that the weak commitment of stakeholders in making improvements, reforms, and the implementation of the process becomes part of the incapacity of competent construction workers [7].

Information about skilled construction workers in a reasonable level is obtained from proof of certification. However, from the results of the research, more information that should be direct to the workers concerned is taken over by companies that supply labor. This fact needs to be examined more closely for policyholders. Through in-depth interviews and FGDs, it can be known that business consumers basically need information about the competence of their construction workers. However, legal and legal access to information through certification of construction workers is difficult to obtain, so they tend to respond to abstention compared to answering it. This indicates the concern of business consumers is indeed greater for this problem. That is, as professionals they need certainty, measurable and credible information.

Based on a report from the Ministry of PUPR and the results of various studies, the institution that handles the socialization and certification of competency of skilled workers in the construction field is not seen as a movement. Instead of the performance seen, there are actually a variety of problems [3] the interest in skilled workers in the construction sector must meet the requirements of the vocational field that has been determined. Therefore, an institution that focuses on this area is needed [22] by increasing the relations between knowledge, skills, and attitudes [23].

5. Conclusion

Research on the need assessment on competency certification for skilled construction workers in the construction field above, it can be concluded that:

1. Construction consumers basically require certified skilled workers with standardized competencies. However, specifically retail consumers still tend to be passive in addressing these conditions.
2. Construction consumers generally want profiles of construction workers who have more than one competencies. Therefore, it is necessary to classify and profile the competence of workers in accordance with the types of competencies needed in the construction project
3. There needs to be socialization on the certification of competency of skilled workers in the field of construction that is more reliable, organized and systematic to stakeholders by involving experts in the field of construction education.
4. It is necessary to establish a credible special institution or organization and involve experts in the field of building construction education, measurement, and evaluation of training in handling and monitoring certified skilled workers both from

training to standardization of competencies covering knowledge, skills, and attitudes.

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Conflict of Interest

The authors report no conflict of interest.

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